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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,637	08/22/2003	Takao Tsuruoka	IPO-P1755	9783
3624	7590	12/24/2008		
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER MISLEH, JUSTIN P	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 12/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,637	TSURUOKA, TAKAO	
	Examiner	Art Unit	
	JUSTIN P. MISLEH	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 14, 20-22 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 15-17 and 27 is/are rejected.
- 7) ☒ Claim(s) 6, 11-13, 18 and 23-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 6, 2008 have been fully considered but they are not persuasive.
2. Applicant argues, "the present application teaches a shooting situation estimating means which estimates a shooting situation such as 'scenery shooting scene,' ... 'close up shooting scene' or the like totally independent of the image obtained." See Amendment, page 16, 2nd full paragraph. Applicant further states, "calculation unit 203 ... and white balancing unit 240 of Mancuso et al. are directly responsive to the mage signal and correct the image signal based on the histogram or the color temperature of the light source and further have a direct effect upon image." See Amendment, page 16, 3rd full paragraph. Applicant concludes, "the present invention provides a shooting situation estimation unit which is not in any way affected by the image provided from the CCD 120 or the decompression unit 130 ... [it] is therefore submitted that Mancuso et al. neither disclose nor suggest a 'shooting condition estimator.'" See Amendment, page 16, last paragraph, – page 17, 1st full paragraph.
3. The Examiner respectfully disagrees with Applicant's position. While Applicant has provided an accurate of the present invention; Applicant has not specifically distinguished the claim language from the prior art. According to MPEP § claims are to be given their broadest reasonable interpretation. In the case of Claim 1, the claim language simply states, *inter alia*, "a shooting condition estimator for estimating a shooting condition when an image based on said signal is acquired." The "shooting condition estimator" is defined as "estimating a shooting

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condition when an image based on said signal is acquired.” While specification may describe a “shooting condition” as those provided by Applicant above, the claim is absent any such specific description. Furthermore, the claim language does not even indicate that the “shooting condition estimator” should be separate and independent (or rather not directly responsive) to the captured image. In fact, Mancuso et al. provide exactly what is required by the claim language.

Moreover, there is nothing in the claim language that precludes elements 230, 235 and 240 of Mancuso et al. from satisfying the claimed requirements of the “shooting condition estimator.”

4. Applicant additionally argues, “Mancuso et al. neither teach nor remotely disclose a correction unit correcting the amount of noise estimated by the noise estimator on the basis of the shooting situation estimated by the shooting situation estimator, recited in claim 1.” See Amendment, page 17, 2nd full paragraph. Applicant further notes, “It is submitted that unit 255 shown in Fig. 2 of Mancuso et al., identified as a ‘noise reducing unit for reducing the noise in the signal based on the amount of noise corrected by the correction unit,’ is not a noise reducing unit, but is a color-tone correction unit which corrects alteration of one or more color categories without altering the other colors of the image.” See Amendment, page 17, last paragraph.

5. The Examiner again respectfully disagrees with Applicant’s position. The “noise reducing unit” merely requires “[**reducing**] **the noise in the signal** based on the amount of noise corrected by the correction unit” (emphasis added by Examiner). The Examiner respectfully notes the claim language does not indicate which noise in the image signal is to be reduced, how the noise in the image signal is to be reduced, or how the “the noise in the signal” is related to the “amount of noise” estimated by the noise estimator. In other words, the claim language is written broadly enough that the noise that is reduced may comprise any type of noise or even the

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same noise that is/was estimated. The portion of the claim language that recites “based on the amount of noise corrected by the correction unit” simply means that the signal that the noise is being reduced in is the signal that is emitted from the correction unit. In the case of Mancuso et al., element 255 is clearly subsequent and directly attached to the noise reduction unit 250; thus, there is no question that the noise being reduced is based on the amount of noise corrected by the correction unit. Moreover, Mancuso et al. indicate that element 255 “correct alterations ... of one or more color categories without altering the other colors of the image ... improves the quality of representation [in an image]” (see Mancuso et al., column 4, lines 54-60; emphasis added by the Examiner). It is clear element 255 is strictly intended to improve the quality of the image without introducing any additional noise in the image, which satisfactorily meets the claimed requirement of “reducing the noise in the signal.”

6. Thus, at least for these reasons, the rejection will be maintained.

Specification

7. The substitute specification originally filed August 22, 2003 and resubmitted October 6, 2008 has been entered because it conforms to 37 CFR 1.125(b) and (c). The Examiner respectfully notes no new matter has been added.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1 – 4, 15, 16, and 27** are rejected under 35 U.S.C. 102(b) as being anticipated by Mancuso et al. (US 6,256,414 B1).

10. For **Claims 1 and 27**, Mancuso et al. disclose, as shown in figures 1 and 2, an image pickup system comprising:

a noise estimator (245) for estimating an amount of noise contained in a digitized signal from an image pickup element (120) composed of an array of a plurality of pixels, either for each pixel or for each specified unit area comprising a plurality of pixels (see column 2, lines 26 – 58; and column 4, lines 32 – 53);

a shooting condition estimator (230; 235; and 240) for estimating a shooting condition when an image based on said signal is acquired (see column 4, lines 11 – 31);

a correction unit (250) for correcting the amount of noise estimated by the noise estimator (245) based on the shooting condition estimated by the shooting condition estimator (230; 235; and 240; see column 4, lines 32 – 53); and

noise reducing unit (255) for reducing the noise in the signal based on the amount of noise corrected by the correction unit (see column 4, lines 54 – 58).

11. As for **Claim 2**, Mancuso et al. disclose, as shown in figures 1 and 2, color filters arranged on a front surface of the image pickup element (120; see column 2, lines 26 – 58); and

a separating unit (205) for separating the signal that is output from the image pickup element into signals for each color filter (see column 3, lines 42 – 50).

12. As for **Claims 3 and 15**, Mancuso et al. disclose, as shown in figures 1 and 2, wherein the noise estimator (245) comprises:

parameter calculator (245) for calculating parameters based on at least one type of information selected from among a signal value level of the signal (“estimate of the noise dependent on the luminosity of the digital image”; see column 4, lines 33 – 34), *a temperature of the image pickup element, a gain for the signal, and a shutter speed during shooting* (not required due to the alternative nature of the claim language); and

a noise amount calculator (245) for calculating the amount of noise based on the parameters calculated by the parameter calculating means calculator (“estimate of the noise dependent on the luminosity of the digital image”; “The digital image is modified on the basis of the estimation performed by the unit 245 so as to reduce dynamically the effects of the noise introduced by the light sensor, dependent on the noise level and on the spatial characteristics of the image”; see column 4, lines 33 – 44).

13. As for **Claims 4, 5, 16, and 17**, Mancuso et al. disclose, as shown in figures 1 and 2, wherein the shooting condition estimator (230; 235; and 240) comprises an overall estimator (230) for estimating the shooting condition for an overall signal when an image based on the signal is acquired (see column 4, lines 12 – 21), based on at least one type of information selected from among *focus information, exposure information (235), zoom position information, eye sensing information and strobe light emission information* (not required due to the alternative nature of the claim language).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 7 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Mancuso et al. (US 6,256,414 B1).

16. As for **Claims 7 and 19**, Mancuso et al. disclose, as shown in figures 1 and 2, wherein the shooting condition estimator (230; 235; and 240) comprises an overall estimating means (230 and 235) estimator for estimating and judging, based on exposure information, whether or not the shooting condition relating to an overall signal when an image based on the signal is acquired is *of back-lighting or excessive front lighting* (see column 4, lines 13 – 21).

Mancuso et al. do not disclose whether or not the shooting condition is of night view shooting.

However, the Examiner respectfully takes **Official Notice** (MPEP § 2144.03) that both the concepts and advantages of determining whether the shooting condition is of night view shooting are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have also included whether the shooting condition is of night view shooting in Mancuso et al. for the advantage of *even further enhancing image quality*.

Allowable Subject Matter

17. **Claims 6, 11 – 13, 18, and 23 – 25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David Ometz can be reached on 571.272.7593. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Justin P. Misleh/
Primary Examiner
Group Art Unit 2622
December 25, 2008**